

# **PROJECT MANUAL CONCORD TURNPIKE SEWER**

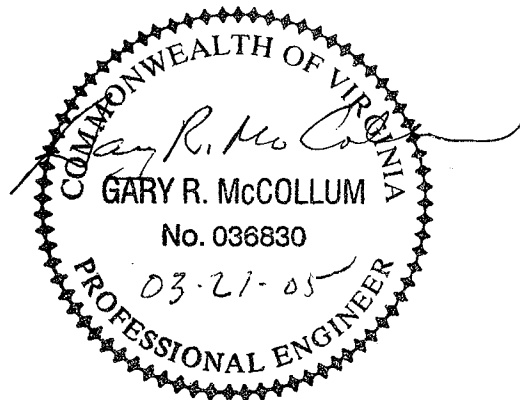
**CITY PROJECT NO. 03073-S**



**PROCUREMENT DIVISION  
3RD FLOOR CITY HALL  
900 CHURCH STREET  
LYNCHBURG, VA 24504  
TELEPHONE (434) 455-3970  
FAX (434) 845-0711**

Prepared By:  
Draper Aden Associates  
2206 South Main Street  
Blacksburg, VA 24060

February 18, 2005



## TABLE OF CONTENTS

### PART 1 CITY’S BIDDING AND CONTRACTING REQUIREMENTS

Advertisement for Bids .....	AD-1
Bid Forms.....	B-1 – B-9
Construction Agreement .....	CA-1 – CA-2
Contract Bond .....	CB-1 – CB-2
Escrow Agreement.....	EA-1 – EA-3
Section I – Instructions to Bidders.....	I-1 – I-12
Section II – Supplemental Conditions .....	II-1 – II-6

### PART 2 SPECIFICATIONS

\*City of Lynchburg Specifications (Under Separate Cover – See Note Below)

Section 00900	Summary and Amendment of Specifications
Section 02235	Boring and Jacking
Section 02680	Testing Pressure Piping Systems
Section 11077	Sewage Grinder Pumps
Section 15060	Pipe and Pipe Fittings
Section 15110	Valves and Specialties
Division 16	Electrical Specifications

### PART 3 DRAWINGS

\*City of Lynchburg Details (Under Separate Cover – See Note Below)

T-1	Title Sheet
T-2	Abbreviations, Legend & General Notes
C-1	Site Plan
C-2	Profile and Railroad Crossing Details
D-1	Grinder Pumping Station Details
D-2	Miscellaneous Details
E-1	Electrical

\*Bidders should note that the City of Lynchburg uses a “Manual of Specifications and Standard Details,” available at the City’s website [www.lyncburgva.gov/engineering](http://www.lyncburgva.gov/engineering). The City’s standards are to be followed as modified or amended by the specific sections identified above.

## **ADVERTISEMENT FOR BIDS**

Sealed bids for the "CONCORD TURNPIKE SEWER" project, will be received by the City of Lynchburg, Procurement Division, City Hall, Lynchburg, VA, until 3:00 p.m., April 27, 2005, and then publicly opened and read, in the Bidder's Room, Third Floor, City Hall.

This project consists of provision of all equipment, labor, and materials to install two residential type, sewer grinder package pump stations and related force main.

Plans, Specifications and Contract Documents are open to public inspection, by appointment, at the Utilities Division, 525 Taylor Street, Lynchburg, VA., or may be viewed and printed directly from the City's website: <http://www.lynchburgva.gov/home/index.asp?page=981>.

A Pre-Bid Conference will be held at 10:00 a.m., April 13, 2005, in the Second Floor Training Room, City Hall, Lynchburg, VA. This is not a mandatory pre-bid, however, vendors are encouraged to attend.

All requests for clarification or additional information must be made in writing to V. Eloise Bowling, CPPB, Senior Buyer, Procurement Division, by facsimile (434) 845-0711 or e-mail [eloise.bowling@lynchburgva.gov](mailto:eloise.bowling@lynchburgva.gov), and received by 2:00 pm, April 19, 2005.

## BID FORM

Ms. V. Eloise Bowling, CPPB  
Senior Buyer-Procurement Division  
City of Lynchburg  
Third Floor, City Hall  
900 Church Street  
Lynchburg, Virginia 24504

Dear Ms. Bowling:

The undersigned, as bidder, hereby declares that the only persons interested in this bid as principal, or principals, is or are named herein and that no person other than herein mentioned has any interest in this bid or in the Contract to be entered into; that this bid is made without connection with any other person, company, or parties making a bid; and that it is in all respects fair and in good faith without collusion or fraud.

The undersigned, having visited and examined the sites and having carefully studied all drawings and specifications pertaining to "CONCORD TURNPIKE SEWER" for the City of Lynchburg, Virginia, hereby proposes to furnish all labor, equipment, materials, and services and to perform all operations necessary to execute and complete the work required for the project, in strict accordance with the City of Lynchburg Manual of Specifications and Standard Details, 10/2004 and VDOT Road and Bridge Standards, 2002, together with Addenda Numbered \_\_\_\_\_ issued during bidding period and hereby acknowledged, subject to the terms and conditions of the agreement for the sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) which shall be referred to hereinafter as the **Total for Evaluation of Bids**.

It is understood and agreed that the Owner, in protecting its best interest, reserves the right to reject any or all bids or waive any defects in favor of the City. Any changes, erasures, modifications, deletions in the bid form, or alternate proposals not specified in the bid proposal shall make the proposal irregular and subject to rejection.

We are properly equipped to execute all work of the character and extent of the agreement and so covered by this bid, and will enter into agreement for the execution and completion of the work in accordance with the drawings and specifications in this bid; and we further agree that if awarded the contract, we will commence the work on the date stated in the "Notice to Proceed" and will maintain a work force large enough to execute the work and all obligations no later than the completion date stated hereinbefore.

Enclosed herewith is the following Security, offered as evidence that the undersigned will enter into agreement for the execution and completion of the work in accordance with the drawings, specifications and Project Manual.

Bidder's Bond or Certified Check in the amount of: \$ \_\_\_\_\_

Bond Issued by or name of Bank: \_\_\_\_\_

## Concord Turnpike Sewer Lump Sum Bid Schedule

Pavement Cut and Removal, Asphalt Concrete	\$
Foundation Stone	\$
Bedding Stone	\$
Compacted Aggregate Backfill	\$
Coarse Granular Aggregate Backfill	\$
Trench (Select) Borrow Backfill	\$
4-inch PVC Sewer Pipe	\$
Bored and Jacked Sewer Pipe	\$
Encasement Pipe (Bored)	\$
Manhole Precast Riser Ring	\$
Manhole Frames and Covers – Waterproof	\$
Machine Core Existing Manholes	\$
Offsite Borrow	\$
Regular Excavation	\$
Trench Patching for New Pipe Installation	\$
Seeding and Fine Grading	\$
Silt Fence Barrier	\$
Straw Bale Barrier	\$
Small HDPE Force Main Pipe (including Carrier Pipe)	\$
Plug Valves	\$
Fittings and Accessories	\$
Grinder Pumps	\$
Electrical Wiring and Connections	\$
(A)Total Bid*	\$
(B)Flagging Days for Railroad Permit days x \$700.00 =	\$
Total for Evaluation of Bids** (A+B)	\$

\*Total Bid must include all work identified in the Bid Documents.  
This tabulation may be used as the Schedule of Values for this project.

\*\*Number of Flagging Days for Railroad Permit shall be Bidder's estimate of the days required for work within the railroad right of way. City shall pay railroad for the number of days identified in this schedule. Additional days required for flagging, beyond those identified above shall be at Contractor's expense. Award of the project will be based on the "**Total for Evaluation of Bids**" amount. The actual contract agreement amount will be based on the "**Total Bid**" amount.

**EQUAL OPPORTUNITY REPORT STATEMENT (Attachment 1)**

The Bidder shall complete the following statement by checking the appropriate blank as follows. The Bidder has \_\_\_\_\_ has not \_\_\_\_\_ participated in a previous contract subject to the non-discrimination clause prescribed by Executive Order 10925, dated March 6, 1961, or Executive Order 11114 dated June 22, 1963.

In conjunction with the City of Lynchburg's policy to utilize Disadvantaged Business Enterprises wherever possible, the Bidder has solicited quotations for labor, material, and/or services from the following:

<u>NAME OF FIRM</u>	<u>PERSON(S) CONTACTED</u>	<u>DATE</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

Of those listed above, we intend, at this time, to utilize the following in the completion of the work required by this contract:

_____
_____
_____

"This firm assures that it will give its best efforts to utilize Disadvantaged Business Enterprises wherever possible."

CERTIFIED BY: \_\_\_\_\_ (signature)  
\_\_\_\_\_ (Typed/printed name &  
title)

BIDDER'S NAME: \_\_\_\_\_

IRS NUMBER: \_\_\_\_\_

\_\_\_\_\_ This firm shall perform all construction with its own employees and, therefore, is not required to solicit quotations from DBE's.

FAILURE TO DOCUMENT AND REPORT DBE CONTACTS ON THIS FORM MAY BE A BASIS FOR REJECTION OF THE BID AS NONCONFORMING.

The undersigned hereby agrees, if awarded the contract, to execute and deliver to the City within ten (10) days after his receipt of Contract Documents, a satisfactory contract bond as required in the amount of 100% of the Contract Price.

The undersigned further agrees that in case of failure on his part to execute the said agreement within the ten consecutive calendar days after written notice being given on the award of the contract, the monies payable by the Securities accompanying this bid shall be paid to the City of Lynchburg, Virginia, as liquidated damages for such failure; otherwise, the Securities accompanying this bid shall be returned to the undersigned.

Attached herewith is a certified Anti-Collusion Statement. Failure to sign and notarize this statement may result in rejection of the bid.

This bid is subject to acceptance within a period of 90 days from this date.

Respectfully submitted,

\_\_\_\_\_  
DATE

\_\_\_\_\_  
CONTRACTOR

CURRENT CONTRACTOR'S VIRGINIA REGISTRATION NO.: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
ADDRESS

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

If determined to be the successful low bidder(s), the above-signed elects to utilize the escrow account procedure, a copy of which is attached to this bid package as form EA-1.

\_\_\_\_\_  
Write "Yes" or "No" on above line.

The City reserves the right not to withhold retainage.

In the event the successful bidder elects to use the escrow account procedure, the "Escrow Agreement" form shall be executed and submitted to the City of Lynchburg within fifteen (15) calendar days after notification. If the "Escrow Agreement" form is not submitted within the fifteen-day period, the Contractor shall forfeit his rights to the use of the escrow account procedure.

## ***STATEMENT OF EXPERIENCE***

*Proposer:* \_\_\_\_\_  
\_\_\_\_\_

*How Long In Business:* \_\_\_\_\_ *At Current Address:* \_\_\_\_\_

*Principals:* \_\_\_\_\_ *Title:* \_\_\_\_\_  
\_\_\_\_\_ *Title:* \_\_\_\_\_  
\_\_\_\_\_ *Title:* \_\_\_\_\_

*Type of Work Normally Performed:* \_\_\_\_\_  
\_\_\_\_\_

*Projects of this type previously completed:*

1. \_\_\_\_\_  
\_\_\_\_\_ *Amount \$* \_\_\_\_\_  
2. \_\_\_\_\_  
\_\_\_\_\_ *Amount \$* \_\_\_\_\_  
3. \_\_\_\_\_  
\_\_\_\_\_ *Amount \$* \_\_\_\_\_

*Reference (for Projects listed above):*

1. \_\_\_\_\_  
\_\_\_\_\_ *Tel. No.* \_\_\_\_\_  
2. \_\_\_\_\_  
\_\_\_\_\_ *Tel.No.:* \_\_\_\_\_  
3. \_\_\_\_\_  
\_\_\_\_\_ *Tel. No.* \_\_\_\_\_



***STATEMENT OF AVAILABLE RESOURCES***

*Equipment:* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*Number of Personnel Currently Employed:* \_\_\_\_\_

*Number of Personnel Available for Project:* \_\_\_\_\_

*Other Pertinent Information:* \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## CERTIFICATION OF NONDISCRIMINATION AND ANTI-COLLUSION

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*By submitting their bids, all bidders certify to the City of Lynchburg, VA that they will conform to the provisions of the Federal civil Rights Act of 1964, as amended, as well as the Virginia Fair Employment Contracting Act of 1975, as amended, where applicable, the Virginian's With Disabilities Act, the Americans With Disabilities Act, Section 2.2-4311 of the Virginia Public Procurement Act, and the Lynchburg Procurement Ordinance:*

*In every contract over \$10,000, the provisions below apply:*

*1. During the performance of this contract, the contractor agrees as follows:*

*A. The contractor will not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, age, disability, or any other basis prohibited by state law relating to discrimination in employment, except where there is bona fide occupational qualification reasonably necessary to the normal operation of the contractor. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.*

*B. The contractor, in all solicitations or advertisements for employees placed by or on behalf of the contractor, will state that such contractor is an equal opportunity employer.*

*C. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.*

*2. The contractor will include the provisions of the foregoing paragraphs A, B and C in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.*

Certified by: \_\_\_\_\_ (corporate seal)

Date: \_\_\_\_\_

Note: I hereby certify that this bid is not the result of, or affected by, any act of collusion with another person engaged in the same line of business, or any act of fraud punishable under the Virginia Commonwealth Frauds Act.

\_\_\_\_\_ (seal)

Acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

ALL PROSPECTIVE FIRMS MUST RESPOND TO THE FOLLOWING

If a limited liability company, limited liability partnership, or a limited partnership indicate below:

- Check one:    ☐ Limited Liability Company
- ☐ Limited liability partnership
- ☐ Limited partnership

Have you registered with the State Corporation Commission, to conduct business in Virginia?  
☐ Yes    ☐ No

Name and address of organizer: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

List who is authorized to execute contracts: \_\_\_\_\_

\_\_\_\_\_

If conducting business under an assumed business name, fill out the following information:

Name of assumed business: \_\_\_\_\_

Owner's name and address: \_\_\_\_\_

Registration date: \_\_\_\_\_

Expires: \_\_\_\_\_

If conducting business as a sole proprietorship, fill out the following information:

Individual's name liable for all obligations of business: \_\_\_\_\_

If you are a sole proprietor using an assumed name, please list below:

\_\_\_\_\_

Registration date: \_\_\_\_\_

Expires: \_\_\_\_\_

**Questions to Offeror**

Offerors are to respond to the following question: Have the individual(s), owner(s), or principal officer(s) of the firm submitting the proposal ever been convicted of a felony or a misdemeanor involving moral turpitude, which would adversely affect the ability to perform the contract?

YES \_\_\_\_\_ NO \_\_\_\_\_

If yes, list individual or officer and title and give details:

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NOTE: Answering yes to this question will not necessarily exclude your company from consideration but will be used to weigh the relationship between the offense and the contract to be performed.

Is your firm currently involved in litigation which would adversely affect performance on this contract?

YES \_\_\_\_\_ NO \_\_\_\_\_

## CONSTRUCTION AGREEMENT

This Agreement made and entered into on the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between, \_\_\_\_\_ party of the first part, hereinafter referred to as Contractor, and the City of Lynchburg, a municipal corporation of the Commonwealth of Virginia, party of the second part, hereinafter referred to as the Owner.

That the Contractor, for the consideration hereinafter fully set out, hereby agrees with the Owner as follows:

1. That the Contractor shall furnish all labor, materials, tools, and equipment and perform all work in manner and form as contained in the Project Manual and Drawings, dated \_\_\_\_\_ for "CONCORD TURNPIKE SEWER" and all other specifications as referenced in these documents.

2. That the Contractor shall commence work within ten (10) days after award of the Contract and Notice to Proceed with the work under contract, and shall be completed in its entirety within 45 calendar days. Owner and Contractor recognize that time is of the essence of this Agreement and that the Owner will suffer financial loss if the work is not completed within the times specified in the Notice To Proceed, plus any extensions thereof allowed in accordance with the General Conditions. They also recognize the delays, expense and difficulties involved in providing the actual loss suffered by Owner if the work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Two Hundred Dollars (\$200.00) for each day that expires after the time specified for completion. If the Contractor is subject to liquidated damages the City has the right to withhold the liquidated damages from the Contractor's regular payments or retainage.

3. The Owner hereby agrees to pay the Contractor for the faithful performance of this Agreement subject to additions and deductions as provided in the Specifications or Proposal, in lawful money of the United States, as follows:

\_\_\_\_\_ Dollars  
( \$ \_\_\_\_\_ )

4. The Owner shall make partial payment on a monthly basis to the Contractor on the basis of a duly certified and approved estimate of work performed during the preceding calendar month by the Contractor, less five percent (5%) of the amount of such estimate which is to be retained by the Owner until all work has been performed strictly in accordance with this Agreement and until such work has been accepted by the Owner.

5. Upon submission by the Contractor of evidence satisfactory to the Owner that all payrolls, material bills and other costs incurred by the Contractor in connection with the construction of the work have been paid in full, final payment on account of this Agreement shall be made within 90 days after the completion by the Contractor of all work covered by this Agreement and the acceptance of such work by the Owner.

6. It is further mutually agreed between the parties hereto that if, at any time after the execution of this Agreement and Surety Bond hereto attached for its faithful performance, the Owner shall deem the surety or sureties upon such bond to be unsatisfactory, or if for any reason, such bond ceases to be adequate to cover the performance of the work, the Contractor shall at its expense, within five (5) days after the receipt of notice from the Owner so to do, furnish an additional bond or bonds in such form and

amount, and with such surety or sureties as shall be satisfactory to the owner. In such event no further payment to the Contractor shall be deemed to be due under this Agreement until such new or additional security for the faithful performance of the work shall be furnished in manner and form satisfactory to the Owner.

7. Contractor agrees to fulfill all requirements of State, Federal, and Municipal laws which may be applicable to this project.

This Agreement is executed in two counterparts, each of which shall, without proof or accounting for the other counterparts, be deemed an original contract.

IN WITNESS WHEREOF, \_\_\_\_\_ has caused its name to be subscribed to this Agreement by \_\_\_\_\_, its \_\_\_\_\_, and its corporate seal to be hereunto affixed and attested by \_\_\_\_\_, its \_\_\_\_\_, said officers being duly authorized therefore; and the City of Lynchburg has caused its name to be hereunto subscribed by L. Kimball Payne, III, its City Manager, and its corporate seal to be hereunto affixed and attested by Patricia W. Kost, its Clerk of Council, said officers being duly authorized therefore, all as to the day and year first above written.

(SEAL)

ATTEST:

\_\_\_\_\_

\_\_\_\_\_

BY: \_\_\_\_\_  
CONTRACTOR

CITY OF LYNCHBURG

(SEAL)

ATTEST:

\_\_\_\_\_

CLERK OF COUNCIL

BY: \_\_\_\_\_  
CITY MANAGER

APPROVED:

\_\_\_\_\_  
CITY ATTORNEY

## CONTRACT BOND

KNOW ALL MEN BY THESE PRESENTS: That we \_\_\_\_\_  
(Hereinafter called the Principal) and \_\_\_\_\_  
(Hereinafter called the Surety) are held and firmly bond unto the City of Lynchburg, a Municipal Corporation of the Commonwealth of Virginia (Hereinafter called the Owner) in the penal sum of

\_\_\_\_\_ DOLLARS (\$) \_\_\_\_\_) for the  
payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns for the  
faithful performance of a certain written contract, dated the \_\_\_\_\_ day of \_\_\_\_\_,  
20\_\_\_\_, entered into between the Principal and City of Lynchburg, for  
\_\_\_\_\_  
\_\_\_\_\_(project).

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall faithfully perform the terms and conditions of the contract in all respects on his or its part and shall fully pay all obligations incurred in connection with the performance of such contractor on account of labor and materials used in connection therewith and all such obligations of every form, nature, and character, and shall save harmless the Owner from any and all liability of every nature, kind, and character which may be incurred in connection with the performance or fulfillment of such contract on the part of the Principal or other such liability resulting from negligence or otherwise on the part of the Principal, and further shall save harmless the Owner from all costs and damage which may be suffered by reason of the failure of the Principal to fully and completely perform said contract, and shall fully reimburse and repay the Owner for all expenditures of every kind, character, and description which may be incurred by the Owner in connection with making good any and every default which may exist on the part of the Principal in connection with the performance of said contract; and further that if the Principal shall pay all lawful claims of all persons, firms, partnerships or corporations for labor performed and materials furnished in connection with the performance of the contract (we agreeing that failure so to do shall give such persons, firms, partnerships or corporations a direct right of action against either the Principal or Surety under this obligation, or both said Principal and Surety), then this obligation shall be void, otherwise the same shall remain in full force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall in no event exceed the penal amount of this obligation as herein stated;

PROVIDED HOWEVER, that this bond is issued subject to the following conditions and privileges:

1. That no suit, action or proceeding by reason of any default whatever on the part of the Principal shall be brought on this bond after one year from the date on which final payment on the contract falls due;
2. That any alterations or additions which may be made under the contract or the work to be done under it or the giving by the Owner of any extension of time for the performance of the Contract, or any other forbearance on the part of either the Owner or the Principal shall not in any way release the Principal and Surety, or either of them, their heirs, executors, administrator, successors or assigns, from their liability hereunder, notice to the Surety of any such alterations, extensions or forbearances being expressly waived.

Executed in two counterparts.

IN WITNESS WHEREOF, \_\_\_\_\_, the Principal, has  
caused its name to be hereunto subscribed and its corporate seal to be hereunto affixed and duly attested

by its proper officers heretofore duly authorized this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, and the Surety has caused its name to be hereunto subscribed and its seal affixed by its authorized Attorney-in-Fact.

\_\_\_\_\_

BY: \_\_\_\_\_  
President

(SEAL)

ATTEST:

\_\_\_\_\_  
Secretary

\_\_\_\_\_

BY: \_\_\_\_\_  
Attorney-in-Fact



## ESCROW AGREEMENT

THIS AGREEMENT, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ by,  
between and among the City of Lynchburg ("City"), \_\_\_\_\_  
\_\_\_\_\_ ("Contractor"),

\_\_\_\_\_  
(Name of Bank)

\_\_\_\_\_  
(Address of Bank)

a trust company, bank, or savings and loan institution with its principal office located in the  
Commonwealth of Virginia (hereinafter referred to collectively as "Bank"), and \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_ ("Surety") provides:

### I.

The City and the Contractor have entered into a contract with respect to City.

Project No. and Name: \_\_\_\_\_

\_\_\_\_\_  
("The Contract"). This agreement is pursuant to, but in no way amends or modifies, the Contract.  
Payments made hereunder or the release of funds from escrow shall not be deemed approval or  
acceptance of performance by the Contractor.

### II.

In order to assure full and satisfactory performance by the Contractor of its obligations under the  
Contract, the City's Director of Finance is required thereby to retain certain amounts otherwise due the  
Contractor. The Contractor has, with the approval of the City, elected to have these retained amounts  
held in escrow by the Bank. This agreement sets forth the terms of the escrow. The Bank shall not be  
deemed a part to, bound by, or required to inquire into the terms of, the Contract or any other instrument  
or agreement between the City and the Contractor.

### III.

The City shall from time to time pursuant to its contract pay to the Bank amounts retained by it under the  
Contract. Except as to amounts actually withdrawn from escrow by the City, the Contractor shall look  
solely to the Bank for payment of funds retained under the Contract and paid by the City to the Bank.

The risk of loss by diminution of the principal of any funds invested under the terms of this contract shall  
be solely upon the Contractor.

Funds and securities held by the Bank pursuant to this Escrow Agreement shall not be subject to levy,  
garnishment, attachment, lien, or other process whatsoever. Contractor agrees not to assign, pledge,  
discount, sell or otherwise transfer or dispose of his interest in the escrow account or any part thereof,  
except to the Surety.

#### IV.

Upon receipt of checks or warrants drawn by the Director of Finance and made payable to it as escrow agent, the Bank shall promptly notify the Contractor, negotiate the same and deposit or invest and reinvest the proceeds in approved securities in accordance with the written instruction of the Contractor. In no event shall the Bank invest the escrowed funds in any security not approved.

#### V.

The following securities, and none other, are approved securities for all purposes of this Agreement:

- (1) United States Treasury Bonds, United States Treasury Notes, United States Treasury Certificates of Indebtedness or United States Treasury Bills,
- (2) Bonds, notes and other evidences of indebtedness unconditionally guaranteed as to the payment of principal and interest by the United States,
- (3) Bonds or notes of the City,
- (4) Bonds of any political subdivision of the City, if such bonds carried, at the time of purchase by the Bank or deposit by the Contractor, a Standard and Poor's or Moody's Investors Service rating of at least "A", and
- (5) Certificates of deposit issued by commercial Banks located within the Commonwealth, including, but not limited to, those insured by the Bank and its affiliates,
- (6) Any bonds, notes, or other evidences of indebtedness listed in Items (1) through (3) above may be purchased pursuant to a repurchase agreement with a Bank, within or without the City having a combined capital, surplus and undivided profit of not less than \$25,000,000 provided the obligation of the Bank to repurchase is within the time limitations established for investments as set forth herein. The repurchase agreement shall be considered a purchase of such securities even if title, and/or possession of such securities is not transferred to the Escrow Agent, so long as the repurchase obligation of the Bank is collateralized by the securities themselves, and the securities have on the date of the repurchase agreement a fair market value equal to at least 100 percent of the amount of the repurchase obligation of the Bank, and the securities are held by a third party, and segregated from other securities owned by the Bank.

No security is approved hereunder, which matures more than five years after the date of its purchase by the Bank or deposit by the Contractor.

#### VI.

The Contractor may from time to time withdraw the whole or any portion of the escrowed funds by depositing with the Bank approved securities in an amount equal to, or in excess of, the amount so withdrawn. Any securities so deposited or withdrawn shall be valued at such time of deposit or withdrawal at the lower of par or market value, the latter as determined by the Bank. Any securities so deposited shall thereupon become a part of the escrowed fund.

Upon receipt of a direction signed by the City's Director of Public Works or the City Engineer, the Director of Finance or the City Accountant shall authorize the Bank to pay the principal of the fund, or any specified amount thereof, to the account of the City of Lynchburg. Such payment shall be made in cash as soon as is practicable after receipt of the direction.

Upon receipt of a direction signed by the City's Director of Public Works or the City Engineer, the Director of Finance or the City Accountant shall authorize the Bank to pay and deliver the principal of the fund, or any specified amount thereof, to the Contractor, in cash or in kind, as may be specified by the Contractor. Such payment and delivery shall be made as soon as is practicable after receipt of the direction.

VII.

For its services, hereunder the Bank shall be entitled to a reasonable fee in accordance with its published schedule of fees or as may be agreed upon by the Bank and the Contractor. Such fee and any other costs of administration of this Agreement shall be paid from the income earned upon the escrowed fund and, if such income is not sufficient to pay the same, by the Contractor.

VIII.

The net income earned and received upon the principal of the escrowed fund shall be paid over to the Contractor in quarterly or more frequent installments. Until so paid or applied to pay the Bank's fee or any other costs of administration such income shall be deemed a part of the principal of the fund.

IX.

The Surety undertakes no obligation hereby but joins in this Agreement for the sole purpose of acknowledging that its obligations as surety for the Contractor's performance of the Contract are not affected hereby.

WITNESS the following signatures, all as of the day and year first above written.

CITY OF LYNCHBURG

CONTRACTOR: \_\_\_\_\_

BY: \_\_\_\_\_  
City Manager

BY: \_\_\_\_\_  
Officer, Partner, or Owner (Seal)

**SECTION I**

**INSTRUCTIONS TO BIDDERS**

## INDEX

### SECTION I

#### INSTRUCTIONS TO BIDDERS

	<u>PAGE NUMBERS</u>
1.1 SCOPE OF WORK	I-1
1.2 SUBMITTAL OF BIDS	I-1
1.3 NOT USED	
1.4 PLANS AND SPECIFICATIONS	I-1
1.5 BID GUARANTEE	I-1
1.6 PERFORMANCE BOND	I-1
1.7 PRE-BID CONFERENCE	I-1
1.8 AWARD OF CONTRACT	I-1
1.9 INVESTIGATION OF CONDITIONS	I-2
1.10 INTERPRETATION	I-3
1.11 BID SUBMISSION	I-3
1.12 WITHDRAWAL OF BIDS AFTER DATE FOR SUBMISSION	I-4
1.13 BID OPENING	I-4
1.14 REJECTION OF BIDS	I-4
1.15 TIME OF COMPLETION AND LIQUIDATED DAMAGES	I-4
1.16 PRE-CONSTRUCTION CONFERENCE	I-5
1.17 DISADVANTAGE BUSINESS ENTERPRISE PLAN	I-5
1.18 EMPLOYMENT DISCRIMINATION BY CONTRACTOR PROHIBITED	I-7
1.19 DRUG-FREE WORKPLACE REQUIRED	I-7
1.20 MODIFICATION OF CONTRACT	I-7

1.21	CONTRACT INTENT	I-8
1.22	PROTECTION OF PROPERTY AND PERSONNEL	I-8
1.23	VERIFICATION OF PROJECT CONDITIONS	I-8
1.24	INSPECTION OF WORK AND FINAL APPROVAL	I-8
1.25	PROGRESS PAYMENTS	I-9
1.26	EMERGENCY SERVICE	I-12
1.27	RELATED DOCUMENTS	I-12
1.28	PROJECT CLOSEOUT DOCUMENTS	I-12
1.29	CLEAN UP	I-12
1.30	COORDINATION OF CSXT CROSSING PERMIT	I-12

## SECTION I

### INSTRUCTIONS TO BIDDERS

#### 1.1 SCOPE OF WORK:

The work included under this contract shall consist of all labor, material, equipment and the performance of all work necessary to complete the project known as "CONCORD TURNPIKE SEWER".

#### 1.2 SUBMITTAL OF BIDS:

Bids shall be prepared and submitted in accordance terms and conditions outlined in these bid documents or as specified by the City's Procurement Office.

#### 1.4 PLANS AND SPECIFICATIONS:

Copies of plans, specifications and contract documents will be open for public inspection as stated in the advertisement.

The successful bidder shall be issued, without charge, five sets of sets of plans and specifications.

#### 1.5 BID GUARANTEE:

Each bid must be accompanied by a certified check on a bank satisfactory to the OWNER or a Bid Bond in the amount of five percent (5%) of the amount of bid, made payable to the OWNER, as assurance that the successful bidder will enter into contract within ten (10) days after notification of award of contract.

#### 1.6 BONDING:

A performance bond and a labor and material payment bond will be required in the amount of 100 percent of the bid.

#### 1.7 PRE-BID CONFERENCE:

The Pre-Bid Conference will be held at 10:00 a.m., April 13, 2005, in the Second Floor Training Room, City Hall, Lynchburg, VA, for the purpose of discussing all regulations, specifications, and answering related questions. Of particular concern at this conference will be the City's requirements for affording equal opportunity to all qualified persons to bid on subcontract work performed as a part of this project.

#### 1.8 AWARD OF CONTRACT:

A. The contract will be awarded on the basis of the **“Total for Evaluation of Bids” (Total Bid plus the amount for CSX flagman)**. The bidder agrees, if his bid is accepted, to contract with the City of Lynchburg, Virginia, in the form of Contract attached, to furnish all necessary, equipment,

machinery, tools, apparatus, means of transportation and labor necessary to construct and complete the work covered by this bid and other construction documents for the above-captioned project.

B. The award of this Contract will be to the lowest responsive, responsible, bidder whose qualifications indicate the award will be in the best interest of the OWNER and whose bid meets the prescribed requirements. The OWNER reserves the right to reject any and all bids and waives any and all informalities and reserves the right to disregard all nonconforming or conditional bids or counter proposals.

C. Unless cancelled or rejected, a responsive bid from the lowest responsible bidder shall be accepted as submitted, except that if the bid from the lowest responsible bidder exceeds available funds, pursuant to Section 18-158 of the Lynchburg Procurement Ordinance, the City may negotiate with the apparent low bidder to obtain a contract price within available funds.

1. Procedures for Negotiations. If the City wishes to negotiate with the apparent low bidder to obtain a contract price within available funds, negotiations shall be conducted in accordance with the following procedures:
  - a. The Department shall provide the Purchasing Agent, with a written determination that the apparent low bid exceeds available funds and also provide the Purchasing Agent with a suggested reduction in scope for the proposed purchase.
  - b. The Purchasing Agent shall advise the lowest responsible bidder, in writing, that the proposed purchase exceeds available funds. He shall further suggest a reduction in scope from the proposed purchase, and invite the lowest responsible bidder to amend its bid proposal based upon the proposed reduction in scope.
  - c. Repetitive informal discussions with the lowest responsible bidder for purposes of obtaining a contract within available funds shall be permissible.
  - d. The lowest responsible bidder shall submit an addendum to its bid, which addendum shall include the change in scope for the proposed purchase, the reduction in price, and the new contract value.
  - e. If the proposed addendum is acceptable to the City, the City may award a contract within funds available to the lowest responsible bidder based upon the amended bid proposal.
  - f. If the City and the lowest responsible bidder cannot negotiate a contract within available funds, all bids shall be rejected.

#### 1.9 EXAMINATION OF BID DOCUMENTS AND SITE:

Before submitting bids, each bidder must examine bid documents thoroughly; and familiarize themselves with Federal, State and local laws, ordinances, rules, and regulations affecting the work; and correlate their observations with requirements of the bid documents. They shall be responsible for any licenses, fees, taxes and other money obligations required for them to complete the project. This shall not be a "pay" item or extra work.

The bidders shall be responsible for visiting the project site, recording, and verifying all existing conditions, field dimensions, terrain characteristics, measurements, etc., as may be as required for calculating a bid submission, and has read all of the Addenda furnished prior to the opening of the bids, as acknowledged below; and that he fully understands and has satisfied himself relative to the scope and nature of the work to be performed.



It should be noted that utilities (electrical lines, telephone lines and cables, gas lines, sewer lines and water lines) shall be protected by the successful Contractor. Any and all damage caused by the construction of the project shall be the total responsibility of the successful Contractor, and any necessary repairs shall be made at his expense.

No consideration will be given to any claim based on differences between the actual conditions and those indicated in the contract documents. Any discrepancies between drawings and/or the specifications and existing conditions will be referred to the Owners Representative for adjustment before any affected work is begun. Failure to make the foregoing investigation shall not relieve the bidders of assuming all responsibility for improperly estimating the difficulties of performing the complete work as required.

#### 1.10 INTERPRETATIONS:

No oral interpretations of the bid documents will be made to any bidder. To be given consideration, requests for interpretations must be received in time to allow preparation of written response at least five days prior to date fixed for opening of bids. Interpretations will be issued in the form of written addenda to the bid documents and posted on the City website @ [www.lynchburgva.gov](http://www.lynchburgva.gov) prior to scheduled opening of bids. Only interpretations by formal written addenda will be binding. It shall be the responsibility of the bidders to view the website for any and all updates.

All communications in regard to interpretations and any other matters related to this project shall be addressed to V. Eloise Bowling, CPPB, Senior Buyer, City Hall, Procurement Division, Third Floor, 900 Church St, Lynchburg, VA 24504, (434) 455-3961, fax: (434) 845-0711, email: [Eloise.bowling@lynchburgva.gov](mailto:Eloise.bowling@lynchburgva.gov).

#### 1.11 BID SUBMISSION:

Submit bids using forms furnished in the Project Manual and fill in all blank spaces on the form. Repeat notation "Contractor's Current Virginia License No. \_\_\_\_\_" on outside of inner envelope containing bid and bid security, and place this envelope within another envelope addressed to:

V. Eloise Bowling, CPPB  
Senior Buyer-Procurement Division  
City of Lynchburg  
Third Floor, City Hall  
900 Church Street  
Lynchburg, Virginia 24504

Both the inner and outer envelopes shall have noted thereon:

- a. "Concord Turnpike Sewer"
- b. The bidder's name and address.

Receipt deadline for bids will be as stated in the Advertisement.

#### 1.12 WITHDRAWAL OF BIDS AFTER DATE FOR SUBMISSION:

Withdrawal of bids after date for submission: In accordance with the provisions of sec. 2.2-4330 (A) procedure (ii) of the Virginia Public Procurement Act, the bidder shall submit to the Procurement Division his original work papers, documents and material used in the preparation of the bid at or prior to the time fixed for the opening of the bids. The bidder shall have two hours after the opening of bids within which to claim in writing any mistake as defined herein and withdraw his bid. The mistake shall be proved only from the original work papers, documents and material delivered as required herein.

- a. Definition: Contractor's work papers are the original work papers, documents, and materials used in the preparation of the bid as referred to in Section 2.2-4330 of the Virginia Public Procurement Act.
- b. If a bid is withdrawn in accordance with this section, the lowest remaining bid shall be deemed to be the low bid.
- c. No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor to or perform any subcontract or other work agreement for the person or firm to whom the contract is awarded or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn bid was submitted.

#### 1.13 BID OPENING

Sealed bids will be accepted at the Procurement Division, Third Floor, City Hall, until 3:00 p.m., April 27, 2005, and then publicly opened and read, in the Bidder's Room, Third Floor, City Hall. All interested parties are invited to attend.

#### 1.14 REJECTION OF BIDS

The right is reserved to reject any and all bids and to waive any irregularities or informalities in the bidding. The City hereby reserves the right to reject any unit price that it considers to be out of line with reasonable and customary costs as determined by the project manager and substitute payment for such by other means outlined in this contract.

#### 1.15 TIME OF COMPLETION AND LIQUIDATED DAMAGES

The Contractor agrees to commence work and complete the project in accordance with the time period set forth in the written "Notice to Proceed". The project shall be completed in its entirety within 45 calendar days following the issue date of the Notice to Proceed.

All work for this Contract shall be completed and accepted on or before the time limit established in the Contract. In the event the Contractor fails to complete the work by the time limit, liquidated damages, representing the estimated additional cost of administration, engineering, supervision, inspection and other expenses will be assessed in the amount of

\$200.00 for each calendar day beyond the time limit, including Sundays and Holidays, that the project is not completed.

#### 1.16 PRE-CONSTRUCTION CONFERENCE

After the signing of this contract, a pre-construction conference shall be held. The date, time and location of the pre-construction conference will be determined by the City's Project Manager after the contract is awarded. The purpose of this meeting will be to discuss, in detail, all aspects of the specifications and the scheduling of the work. The Contractor will have all key personnel present at this meeting to include the on-site Foreman, the Project Manager assigned to the project and any other management directly involved in the project.

#### 1.17 DISADVANTAGED BUSINESS ENTERPRISE PLAN

##### A. Policy Statement

It is the policy of the City of Lynchburg to utilize Disadvantaged Business Enterprises wherever possible in contracting. This commitment can be demonstrated by the efforts taken in the development of this plan and in correspondence within this organization stating such position.

##### B. List of Procedures to Ensure an Opportunity to DBE's

The following procedures will be utilized by the City of Lynchburg to obtain Disadvantaged Business Enterprise participation:

Advertise 30 days before bids or proposals are requested. It should be noted that some projects may be advertised less than 30 days due to certain circumstances.

Provide written notice to DBE's that their interest in a proposed contract is solicited, with invitation to attend pre-bid meetings.

Maintain a list of DBE's to be contacted.

##### C. DBE Assistance

The City's Purchasing Agent will assist with locating disadvantaged business, should contractor be unsuccessful in locating such firms.

Contact: Raleigh Motley  
Address: Purchasing Division  
900 Church Street  
Lynchburg, VA 24504  
Telephone: (434) 455-3964

##### D. Disadvantaged Business Enterprise Philosophy

Although the Purchasing Agent is not obligated to furnish DBE information, the City strongly advocates and support the use of disadvantaged businesses wherever the opportunity exist.

E. Selection Criteria to Emphasize DBE Goals

Selection of successful project Contractors will include a consideration of cost and a serious evaluation of whether the competitor has conscientiously attempted to meet DBE goals. A requirement of the contract agreement will be that a genuine concerted effort will be made to use Disadvantaged Business Enterprises wherever possible. Such effort must be verifiable, and must be provided to the Purchasing Agent when requested.

F. Project Workforce

The Bidder further proposes and hereby agrees, if awarded the Contract, to use the Subcontractors as listed below for the various items of work. Since the sole reason for listing Subcontract Bidders is to inform the Owner of the Subcontractors who are to be employed on the project, the foregoing is made a part of the Contract Documents.

Each Bidder is hereby instructed in filling in Subcontractor Schedule below to insert his own firm name of "self" only for those Subcontract items which he regularly does with this own forces and for which he has the equipment and mechanics on his own payroll. Failure to fill in any of the spaces or inserting his own firm name or "self" in Subcontract listing for work in which he is not regularly employed may be just cause for the Owner's refusal to accept the Bid.

SUBCONTRACTOR LISTING

The Bidder has fully investigated each subcontractor listed and has in his files evidence each subcontractor has engaged successfully in his line of work for a reasonable period of time, that he maintains a fully equipped organization capable, technically and financially, of performing the work required.

<u>Type of Work</u>	<u>Name and Address</u>	<u>\$ Amount Subcontracted</u>
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____

## MATERIAL SUPPLIERS OR MANUFACTURERS

### Item

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

### 1.18 EMPLOYMENT DISCRIMINATION BY CONTRACTOR PROHIBITED:

The attached Certification of Non-Discrimination and Anti-Collusion statement must be signed and returned as part of this package.

### 1.19 DRUG-FREE WORKPLACE REQUIRED:

Bidders are reminded that Section 2.2-4312 of the Code of Virginia requires that the during the performance of the contract resulting from this bid, the contractor agrees to (i) provide a drug-free workplace for the contractor's employees; (ii) post in conspicuous places, available to employees and applicants for employment, a statement notifying employees that the unlawful manufacture, sale, distribution, dispensation, possession, or use of a controlled substance or marijuana is prohibited in the contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition; (iii) state in all solicitations or advertisements for employees placed by or on behalf of the contractor that the contractor maintains a drug-free workplace; and (iv) include the provisions of the foregoing clauses in every subcontract or purchase order of over \$10,000, so that the provisions will be binding upon each subcontractor or vendor.

For the purposes of this section, "drug-free workplace" means a site for the performance of work done in connection with a specific contract awarded to a contractor in accordance with this solicitation, the employees of whom are prohibited from engaging in the unlawful manufacture, sale, distribution, dispensation, possession or use of any controlled substance or marijuana during the performance of the contract.

### 1.20 - MODIFICATION OF CONTRACT:

In accordance with Section 2.2-4309 of the Virginia Public Procurement Act, the City may extend the term of any resultant contract, expand the scope of work, or otherwise amend a subsequent contract. Any such extension of amendment shall be effective upon written agreement of the parties.

The Contractor shall not commence work or purchase materials for such change orders until written preliminary approval is received from the Owner in the form of an executed Change Order to the originally issued purchase order backing the formal contract agreement.

All amendments & change orders will be limited to twenty-five percent (25%) of the original fixed amount or \$50,000, whichever is greater. In no event may the amount of any contract, without adequate consideration, be increased for any purpose, including, but not limited to, relief of a bidder from the consequences of an error in its bid.

#### 1.21 CONTRACT INTENT:

- A. It is the intent of this Contract to have performed, all work included in these specifications and indicated on the drawings.
- B. The City reserves the right to approve Sub-contractors.
- C. It is vitally important that the Contractor cooperate closely with the Owner in working to keep disruptions to a minimum. Disruptions must be minimized and work schedules cleared in advance with the Owner and Project Manager.

#### 1.22 PROTECTION OF PROPERTY AND PERSONNEL:

- A. The Contractor shall erect traffic control devices, barricades, warning signs, overhead protection, etc., as required by local codes, and laws.
- B. Contractor shall observe OSHA regulations and Owner's safety policies.

#### 1.23 VERIFICATION OF PROJECT CONDITIONS:

In the event the existing conditions differ from those indicated in the specifications or on the drawing and the details cannot be accomplished as designed, the Contractor shall notify the Owners Representative and a solution will be agreed to in advance.

#### 1.24 INSPECTION OF WORK AND FINAL APPROVAL

The Project Manager and his representatives shall, at all times, have access to the work whenever it is in preparation or progress and the Contractor shall provide proper facilities for such access and for inspection. The work will be conducted under the general direction of the Project Manager of the City and is subject to inspection by his appointed inspectors to insure compliance with the terms of the contract. No inspector is authorized to change any provisions of the specifications without written authorization of the City, nor shall the presence or absence of an inspector relieve the Contractor from any requirements of the contract.

If the specifications, the Project Manager's instructions, laws, ordinances or any public authority require any work to be specifically tested or approved, the Contractor shall give the City timely notice of its readiness for inspection, and if the inspection is by another authority other , than the Project Manager, of the date fixed for such inspection. Inspections by the Project Manager will be promptly made, and where practicable at the source of supply. If any work should be covered up

without approval or consent of the City, it shall, if required by the Project Manager, be uncovered for examination at the Contractor's expense

Re-examination of questioned work may be ordered by the Project Manager and, if so ordered, the work shall be uncovered by the Contractor. If such work is found in accordance with the contract documents, the City will pay the cost of re-examination and replacement. If such work be found not in accordance with the contract documents, the Contractor shall pay such cost.

Final approval of any and all work shall be by the Owner's Representative.

#### 1.25 PROGRESS PAYMENTS

Progress payment will be made as outlined by the Agreement between the Owner and the Contractor. Payment request will be submitted in triplicate, on AIA Form G702 with the proper continuation sheets attached, to the Owner for review by the 15<sup>th</sup> of each month.

The Owner will review the payment request and if all is in order, will process and forward to City's Accounts Payable (By the 20th of the Month) Construction payments are only paid at the end of the calendar month; therefore invoices must be received by the Owner no later than the 20th of the month.

- A. All requests for payments shall be submitted to the City Accounts Payable Division by the 20th of each month, in order to be paid by the end of the month. It shall be the Contractor's responsibility to meet with the appropriate inspector or project representative before this time to verify contract quantities and payment requests.
- B. The following procedure will be utilized by the City of Lynchburg and all its contractors to obtain an account of work performed by minority business enterprise participants. Upon submittal of each monthly estimate, a separate sheet (DBE Form 1), which will be supplied by the Engineering Office, is to be completed. This form must be completed and submitted to this office before any payments for the previous month's work will be made. One copy of this form will be submitted, along with each estimate, and a duplicate copy will be submitted to Raleigh Motley, Procurement Division, 900 Church Street, Lynchburg, VA 24504. This form will include the total amount of dollars for this monthly estimate and will include the total dollar value of work completed by any minority business enterprise utilized.
- C. Partial payments shall be made on a monthly basis on or before the thirtieth of each month covering work performed in accordance with the contract requirements.

At least ten days prior to submitting the first application for a partial payment, Contractor shall submit a progress schedule, a final schedule of Shop Drawings submission and a schedule of values of the work. These schedules shall be satisfactory in form and substance to the Owners Representative. The schedule of values shall include quantities and unit prices aggregating the contract price, and shall subdivide the work into component parts in sufficient detail to serve as the basis for progress payments during construction. Upon approval of the schedules of values by the Owners Representative, it shall be incorporated into the form of application for payment furnished by the Owners Representative.

At least ten days before each partial payment falls due (but not more often than once a month) the Contractor shall submit to the owners Representative for review an application for payment filled out and signed by Contractor covering the work completed as of the date of the application and accompanied by such data and schedules as Owners Representative may reasonably require. Owners Representative will within seven days after receipt of each application for payment, either approve payment or return the application to Contractor indicating in writing his reasons for refusing to approve payment. In the latter case, the Contractor may make the necessary corrections and resubmit the application. If the Owners Representative determines that the Contractor has been overpaid, all further partial payments may be credited against such overpayment.

From the total of the amounts so determined for partial payments will be deducted an amount equivalent to five percent of the whole, which will be retained by the City as described hereinafter, and the balance, less all previous payments, will be certified for payment.

- D. Alternative forms of security in accordance with sec 2.2-4338 Code of VA may be used. In lieu of a bid, payment, or performance bond, a bidder may furnish a certified check or cash escrow in the face amount for the bond. Such alternative forms of security must be approved by the City's Attorney.
- E. At the time the bidder submits a bid, he shall have the option to use the escrow account procedure for utilization of City retained funds (in accordance with sec. 2.2-4335 of the Code of VA.), by so indicating in the space provided in the bid documents. In the event the successful Contractor elects to use the escrow account procedure, the "Escrow Agreement" form included in the Bid and Contract shall be executed and submitted to the City within fifteen (15) calendar days after notification. If the "Escrow Agreement" form is not submitted as noted hereinbefore, the successful Contractor shall forfeit such rights to the agent. The successful Contractor, the escrow agent and the surety shall execute an "Escrow Agreement" form and submit same to the City for approval. The successful Contractor's escrow agent shall be a trust company, bank or savings and loan institution with its principal office located in the Commonwealth of Virginia. The "Escrow Agreement" form shall contain the complete address of the escrow agent and surety, and the executed "Escrow Agreement" will be authority for the City to make payment of retained funds to the escrow agent. After approving the agreement, the City will pay to the escrow agent the funds retained as provided herein except that funds retained for lack of progress or other deficiencies on the part of the successful Contractor will not be paid to the escrow agent. The escrow agent may, in accordance with the stipulations contained in the "Escrow Agreement," invest the funds paid into the escrow account and pay earnings on such investments to the successful Contractor or release the funds to the successful Contractor provided such funds are fully secured by approved securities.

Retained funds invested and securities held as collateral for retainage may be released only as and when directed by the City. When the final estimate is released for voucher, the City will direct the escrow agent to settle the escrow account by paying the successful Contractor or the City monies due them as determined by the City. The City reserves the



right to recall retained funds and to release same to the surety upon receipt of written request from the successful Contractor or in the event of default.

Total contract value shall be considered to mean the original amount of the contract, except when the contract is increased or decreased by more than 20 percent in which case the adjusted total shall be used.

The City reserves the right to withhold the payment of any partial or final estimate voucher or any sum or sums thereof from such vouchers in the event of the failure of the successful Contractor to promptly make payment to all persons supplying equipment, tools, or materials, or for any labor used by him in the prosecution of the work provided for in the contract, and for any other cause, including overpayment on previous partial payments.

- F. Payment for material on hand - When requested in writing by the successful Contractor, allowances may be made for material delivered for use on a project, but not incorporated in the work if a bill of sale or other evidence, so as to protect the owner's title to said material be presented and the material be stored in a manner acceptable to the Engineer.
- G. Acceptance and Final Payment - When final inspection and final acceptance have been duly made by the Engineer, the Engineer will prepare the final statement of any changes from the contract documents either as additions to or deductions from the original contract quantities. Thereafter, the Contractor will be afforded 10 days in which to review the final estimate in the City Engineer's office before payment. Prior to final payment, the Contractor shall certify to the City that he has made all settlements, or satisfactory arrangements therefore, for labor, materials and supplies entering into or used by him on the work and shall furnish such other certificates as are required by the City as a prerequisite to the issuance of final payment. In case such evidence is not furnished, any amount necessary to meet such claims may be retained by the City from any monies due the Contractor until such claims are fully satisfied and liens therefore discharged.

Upon review of the final estimate by the Contractor and approval by the Engineer, there will be paid to the Contractor the entire sum due after deducting all previous payments and other amounts to be retained or deducted under the provisions of the contract. All final payments will become due and payable within 90 days after final acceptance of the entire project, as provided hereinbefore. All prior partial estimates and payments shall be subject to correction in the final estimate and payments. Prior to receipt of final payment, the Contractor shall provide a letter of release to the City for all claims by and liabilities to the Contractor for all work done or materials furnished, or for any action of the City or its agents affecting the work.

All ENGINEER costs for discussing and reviewing Contractor requested substitutions shall be borne by the Contractor, whether or not the substitutions are approved. These costs shall be deducted from the "Final Payment" to the Contractor and paid to the ENGINEER.

### 1.26 EMERGENCY SERVICE

The Contractor shall provide the Owners Representative with the telephone numbers of at least two (2) responsible persons that could be contacted for emergency inspections in the event problems associated with the project.

### 1.27 RELATED DOCUMENTS

The general provisions of the Contract, including General and Supplementary Conditions apply to all work specified.

### 1.28 PROJECT CLOSEOUT DOCUMENTS

The Contractor shall submit the close out documents along with the final payment application within 30 days of the Owners Representative final inspection. The Contractor's retainage will not be released until all close out documents are received by the City.

The Close Out documents must contain the following:

- 1) Contractor's Warranty,
- 2) Affidavit of Release of Liens,
- 3) Affidavit of Payment of Debts and Claims,
- 4) Consent of Surety Company to Final Payment

### 1.29 CLEAN UP

Contractor Shall:

- A. Remove debris during each work day. All debris shall be removed from the job-site daily.
- B. Any damage to the building or landscaping shall be repaired to its prior condition or better at no additional cost to the owner.
- C. The Contractor shall be able to produce written documentation that all debris was dumped properly.

### 1.30 COORDINATION OF CSXT CROSSING PERMIT

Contractor shall adhere to all criteria as contained in the approved CSXT Crossing permit. The contractor shall have sole responsibility in contacting and coordinating work activities with the appropriate CSXT parties as listed in the permit. Contractor shall provide and erect the signage as required in the permit agreement.

SECTION II

SUPPLEMENTAL CONDITIONS

INDEX

SECTION II

SUPPLEMENTAL GENERAL CONDITIONS

		<u>PAGE NUMBERS</u>
2.1	CONTRACT DOCUMENTS	II-1
2.2	CONSTRUCTION SCHEDULE	II-1
2.3	SUBCONTRACTS	II-1
2.4	USE OF COMPLETED PORTIONS OF THE WORK	II-2
2.5	RESPONSIBILITY OF THE CONTRACTOR	II-2
2.6	CONTRACTUAL DISPUTES	II-3
2.7	ADMINISTRATIVE APPEALS PROCEDURE	II-3
2.8	ACCEPTANCE & GUARANTEE	II-3
2.9	INSURANCE	II-4 – II-6

## SECTION II

### SUPPLEMENTAL CONDITIONS

#### 2.1 CONTRACT DOCUMENTS:

The City of Lynchburg, Manual of Specifications and Standard Details, 10/2004, the VDOT “Road and Bridge Specifications” 2002, including Special Provisions and Special Provision Copied Notes, the VDOT Road & Bridge Standards, 2002, the Project Manual, Plans, Special Provisions, Addenda, and all supplementary documents are essential parts of the contract and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete work. In case of discrepancy, the Supplemental Specifications and plan notes will govern. Payment will only be made for those pay items and pay units given on the Bid Form.

The Agreement shall be signed in duplicate by the City of Lynchburg and the Contractor. In case the City and the Contractor fail to sign the general conditions, drawings or specifications, the Project Manager shall identify them. The contract documents are complementary, and what is called for by any one shall be as binding as if called for by all. The intent of the documents is to include all labor and materials, equipment, transportation and incidentals necessary for the proper and complete execution of the work. Materials or work described in words which so applied have a well known technical or trade meaning shall be held to refer to such recognized standards.

#### 2.2 CONSTRUCTION SCHEDULE

The Contractor shall submit, for review, a detailed Construction Schedule prior to beginning work on the project. The OWNER shall be notified in advance of any major changes in the Construction Schedule as the project progresses. In order to assist the Engineer with project staffing requirements for the following week, the Contractor shall provide the Engineer, on each Friday, with a detailed work schedule for the following week. The Contractor shall provide the Engineer with at least a seventy-two (72) hour notice of any proposed schedule changes.. The Contractor may be charged for additional costs of inspection when material and workmanship are found to not be ready for inspection at the time the Contractor calls for inspection.

#### 2.3 SUBCONTRACTS

The Contractor shall, as soon as practicable after signing the contract, notify the Project Manager in writing of any changes in the names of subcontractors proposed for the work as listed on the bid form. The Contractor shall not employ subcontractors, unless they are approved by the Project Manager.

The Contractor agrees that he is as fully responsible to the City for the acts and omissions of his subcontractors and of persons, either directly or indirectly, employed by them, as he is for the acts and omissions of persons directly employed by him.

Nothing contained in the contract documents shall create any contractual relation between any subcontractors and the City.

All Contractors proposing subcontract work shall solicit written proposals from at least two qualified subcontractors where possible for such work. The Contractor shall take all reasonable measures to insure that all contractors, including disadvantaged Contractors, are given an equal opportunity to bid on any work to be subcontracted. Bids which include proposals for subcontract work must indicate that proposals were requested from disadvantaged Contractors where available. These proposals shall be on file with the Contractor and available for review by the City. The City, in an effort to afford equal opportunity to all minorities and disadvantaged Contractors, will strictly enforce and adhere to the requirements of this section.

#### 2.4 USE OF COMPLETED PORTIONS OF THE WORK

All bidders should note the requirements of paragraph 1.37, Section 01000 of the Manual of Specifications and Standard Details which allows the Owner to have the right to use, occupy or place into operation any portion of the work that has been completed sufficiently to permit safe use, as determined by the Owners Representative.

#### 2.5 RESPONSIBILITY OF THE CONTRACTOR

The Contractor shall take all responsibility for the work, and take all precautions for preventing injuries to persons and property in or about the work; shall bear all losses resulting to him on account of the amount or character of the work, or because the nature of the land in which or on which the work is done is different from what was estimated or expected, or on account of the weather, elements, or other causes; and, shall assume the defense of and indemnify and save harmless the City, its employees, officers and agents from and against any and all claims, liabilities, judgments, costs, causes of action, damages and expenses, and shall pay all attorney's fees, court costs and other costs incurred in defending such claims, which may accrue against, be charged to, be recovered from or sought to be recovered from the City, its employees, officers and agents by reason of the Contractor's work, whether, such claims arise from the labor and materials furnished for the work; from inventions, patents, and patent rights used in doing the work; or on account of any personal injury or death or damage to property of any person or corporation resulting from the Contractor's work or the actions of the Contractor's employees, officials or agents in performing the work or furnishing materials thereto or caused by the acts of any other person whatsoever, whether or not such persons are subject to the Contractor's control; or in consequence of any improper materials or implements of labor used therein; and, through any act, omission or neglect of the Contractor and his employees, officials and agents. The City, its employees, officers and agents shall not have to give the Contractor any specific type of notice of claims arising out of the Contractor's work.

The Contractor shall carry insurance as specified in Section 2.12 of these Supplementary Conditions. The Contractor shall at all times enforce strict discipline and good order among his employees; and shall seek to avoid employing on the work any unfit person or anyone not skilled or qualified in the work assigned to him.

## 2.6 CONTRACTUAL DISPUTES

Contractual claims, whether for money or other relief, shall be submitted in writing no later than sixty (60) days after final payment. However, written notice of the contractor's intention to file a claim shall be given at the time of the occurrence or beginning of the work upon which the claim is based. Pending claims shall not delay payment of amounts agreed due in the final payment.

## 2.7 ADMINISTRATIVE APPEALS PROCEDURE

In accordance with Sec.18-159 of the Lynchburg City Code, any bidder, offeror or Contractor may protest a decision to award or an award, appeal a decision to refuse to allow withdrawal of bids, appeal a decision of disqualification, debarment or a determination of non-responsibility, or appeal a decision on disputes arising during the performance of a contract.

Any protest or appeal pursuant to this section shall be in accordance with such administrative procedures as the City manager may prescribe.

Any bidder, offeror or Contractor shall submit a written protest or letter of appeal to the City Purchasing Agent with a copy to the City Manager, in the case of construction contracts, within the time constraints as set forth in the act. The written protest or appeal shall include the basis for the protest or appeal and the relief sought, and whether the bidder, offeror or Contractor wishes to have a hearing with respect to the protest or appeal.

If no hearing is requested, the City manager or his designee shall render a written decision to the bidder, offeror or Contractor within ten (10) days of receipt of the written protest or letter of appeal.

If a hearing is requested, it shall be held within (10) days of receipt of the written protest or letter of appeal, and a final decision shall be rendered within ten (10) days of the hearing. During the hearing, the protesting party shall have the opportunity to present pertinent information and to cross-examine adverse witnesses. The hearing shall be an informal administrative proceeding rather than a judicial-type trial, and a disinterested person, who may not be a City employee, appointed by the City Manager, will conduct it.

The findings of fact shall be final and conclusive and shall not be set aside unless the same are fraudulent or arbitrary or capricious, or so grossly erroneous as to imply bad faith. No determination on an issue of law shall be final if appropriate legal action is instituted in a timely matter.

Any party to the administrative procedure shall be entitled to institute judicial review if such action is brought within thirty (30) days of receipt of the written decision.

## 2.8 ACCEPTANCE AND GUARANTEE:

At the completion of the project, a final inspection will be made by the Owners Representative. The Contractor will be notified of the remaining work to be performed. When the work is satisfactorily completed, notification will be given in writing that the project has been accepted. The retainage held for this completed project will be released upon acceptance of the project. The guarantee period will be one (1) year after the date of notification of acceptance.

## 2.9 INSURANCE

### ARTICLE 11 - INSURANCE

#### A. Contractor's Insurance:

1. During the term of this Contract, the Contractor shall procure and maintain insurance coverage with insurance companies rated by A. M. Best Company as A – VIII or better. The company (ies) shall be authorized to do business under the laws of the Commonwealth of Virginia and be acceptable to the City of Lynchburg and shall provide the following minimum types of insurance:

a. **Commercial General Liability Insurance** – This will cover claims for Bodily Injury, Property Damage, Personal and Advertising Injury, Products and Completed Operations, which may arise from operations under the Contract, whether such operations be performed by the Contractor or by any Subcontractor or Independent Contractor, or by anyone directly or indirectly employed by any of them. Such insurance shall include coverage's "X", "C" and "U" for explosion, collapse of other structures and underground utilities, as well as Contractual Liability Insurance covering the requirements outlined in the General Conditions. This insurance shall name the City, the City Council and its employees as additional insureds **by endorsement** to the Commercial General Liability policy. Such policy shall not have a restriction on the limits of coverage provided to the City of Lynchburg as an additional insured. The City of Lynchburg shall be entitled to protection up to the full limits of the Contractor's policy regardless of the minimum requirements specified in this contract. If endorsements to the Commercial General Liability insurance policies cannot be made, then separate policies providing such protection shall be purchased by the Contractor.

1. The Policy shall have the following **minimum** limits:

\$1,000,000 Each Occurrence Limit  
\$1,000,000 General Aggregate Limit  
\$1,000,000 Personal and Advertising Injury Limit  
\$1,000,000 Products and Completed Operations Aggregate Limit  
\$5,000 Medical Expense Limit

This insurance shall include the following provisions and /or endorsements:

- 1) The General Aggregate limit shall apply on a “per project” and on a “per location” basis;
- 2) Coverage shall apply to all liability arising from all premises and operations conducted by the Contractor, subcontractors and independent contractors;
- 3) The Contractor agrees that liability arising from Products and Completed Operations will be covered. Such liability coverage will be maintained for two years after completion of the Work.



4) The Contractor shall require each of his Subcontractors to procure and maintain Commercial General Liability Insurance of the type specified in this document in the minimum amounts required by the City and the Contractor, during the term of this subcontract.

b. **Worker's Compensation and Employer's Liability Insurance** for the Contractor's employees engaged in the Work under this Contract, in accordance with the Statutory requirements of the Commonwealth of Virginia. The Contractor shall require each of his Subcontractors to provide Worker's Compensation and Employer's Liability Insurance for all of the Subcontractor's employees engaged on such subcontracts. If any class of employees engaged on work under the Contract is not protected under the Worker's Compensation statute, the Contractor shall provide similar protection for these employees in amounts not less than the legal requirements. The amount of Employer's Liability Insurance for the Contractor and each of his Subcontractors shall be not less than:

\$100,000 per employee for Bodily Injury.

\$100,000 per employee for disease

\$500,000 per policy for disease

The Worker's Compensation and Employer's Liability Insurance policy shall include an "all states" or "other states" endorsement.

c. **Commercial Automobile Liability Insurance**, including coverage for owned, hired, non owned and borrowed vehicles used in the work with **minimum** limits of \$1,000,000 Combined Single Limit per occurrence. This insurance shall name the City, the City Council and its employees as additional insureds **by endorsement** to the Commercial Automobile Liability policy. Such policy shall not have a restriction on the limits of coverage provided to the City of Lynchburg as an additional insured. The City of Lynchburg shall be entitled to protection up to the full limits of the Contractor's policy regardless of the minimum requirements specified in this contract.

d. **Umbrella Liability or Excess Liability Insurance** with the following **minimum** limits of:

\$5,000,000 Each Occurrence

\$5,000,000 Annual Aggregate

The following policies shall be scheduled as underlying policies:

Commercial General Liability

Commercial Automobile Liability

Employers Liability

This insurance shall name the City, the City Council and its employees as additional insureds **by endorsement** to the Umbrella or Excess Liability policy. Such policy shall not have a restriction on the limits of coverage provided to the City of Lynchburg as an additional insured. The City of Lynchburg shall be entitled to protection up to the full limits of the Contractor's policy regardless of the minimum requirements specified in this contract.

2. Proof of insurance for each type of coverage listed herein shall be provided within 10 Days after issuance of the Award Letter for the Contract, and no Work shall proceed unless all such insurance is in effect. The Contractor shall not allow any Subcontractor to commence work on his subcontract until all such insurance of the Subcontractor has been so obtained and approved by the Contractor and found to be in accordance with the requirements set forth herein.

The Contractor certifies by commencement of the Work that his insurance and that of Subcontractors is in effect and meets the requirements set forth herein.

3. The Contractor shall purchase and maintain required liability and all other insurance as is appropriate for the Work being performed and furnished. The insurance shall provide protection from claims which may arise out of or result from Contractor's performance and furnishing of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed or furnished by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform or furnish any of the Work, or by anyone for whose acts any of them may be liable:

- a. claims under Worker's Compensation, Employers Liability, disability benefits, and other similar employee benefit acts;
- b. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
- c. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
- d. claims for damages insured by personal injury liability coverage which are sustained: (1) by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor; or (2) by any other person for any other reason;
- e. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting there from; and claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle.

4. The insurance required to be purchased and maintained by the Contractor shall:

- a. include completed operations insurance;
- b. with respect to any other insurance coverage written on a claims-made basis, remain in effect for at least 2 years after final payment (and Contractor shall furnish the City and Engineer evidence satisfactory to the City of continuation of such insurance at final payment and 1 year thereafter);
- c. contains a cross liability or severability of interest clause or endorsement. Insurance covering the specified additional insureds shall be primary insurance, and all other insurance carried by the additional insureds shall be excess insurance.

B. All of the aforesaid insurance policies must be endorsed to provide that the insurance company shall give 30 days written notice to the City if the policies are to be terminated or if any changes are made during the Contract period which will affect in any way the insurance requirements required in this contract. Before starting the Work, the Contractor shall provide the City with a copy of each policy which he and each of his Subcontractors shall carry in accordance herewith, together with receipted bills evidencing proof of premium payment. These policies shall contain endorsements to the policies naming the City of Lynchburg as an additional insured as required.

C. Nothing contained herein shall effect, or shall be deemed to affect, a waiver of the City's sovereign immunity under law.

## **SECTION 00900**

### **SUMMARY AND AMENDMENT OF SPECIFICATIONS**

#### **PART 1 GENERAL**

##### **1.01 GENERAL**

A. All construction under this Contract shall adhere to the City of Lynchburg's Manual of Specifications and Standard Details, latest revision, as amended in this section. The manual is available on the City's web site at [www.ci.lynchburg.va.us](http://www.ci.lynchburg.va.us) and [www.lynchburgva.gov/engineering](http://www.lynchburgva.gov/engineering). The sections of the manual that are relevant to this Contract include, but are not necessarily limited to the following:

1. 01000 – General Requirements – Bid Projects
2. 01200 – Measurement and Payment
3. 02200 – Earthwork
4. 02220 – Trenching and Backfilling
5. 02500 – Base Course and Paving
6. 02730 – Sanitary Sewer
7. Roadway Details (25.18)
8. Sewer Details (27.01, 27.03, 27.11, 27.23)
9. Appendix A – Water and Sewer Design
10. Appendix C – Procedures
11. Appendix D - Permits

B. Title of work: City of Lynchburg Concord Turnpike Sewer.

##### **1.02 WORK UNDER THIS CONTRACT**

A. The Work covered under this Contract comprises the furnishing of all labor, materials, equipment, tools and services, and the installation and construction of all items, and the performance of all work necessary to complete the work shown or called for on the Drawings and/or specified in these Specifications.

B. Construction for this project is generally described as follows:

1. Installation of 4-inch sewer and Grinder Pumping Station to serve Ferebee Johnson property along Concord Turnpike.

2. Installation of 4-inch sewer and Grinder Pumping Station to serve Thomas A. Johnson property along Concord Turnpike.
3. Installation of 1.25 to 1.5-inch wastewater force main and valves to facilitate delivery of wastewater from the two Grinder Pumping Stations to the City's James River Interceptor Sewer.
4. Install 6-inch steel casing pipe beneath CSX Transportation railroad tracks, by boring method, to carry 1.5-inch force main.
5. Tie-in gravity sewers and force mains to complete an operable sewer system.
6. Restore properties and work site to conditions equal to or better than prior to construction.

### **1.03 CONTRACT METHOD**

- A. Construct the work under a single lump sum contract.

### **1.04 SIMULTANEOUS WORK**

- A. The Owner reserves the right to award other contracts for additional work in connection with this project as required to install improvements and to equip the project.

### **1.05 WORK SEQUENCE**

- A. Construct work in stages to accommodate project Owner's and/or property Owner's use of premises during construction. It will be necessary that certain existing facilities remain in operation during the construction period. Accordingly, the work shall be planned and staged as necessary to meet that requirement.

### **1.06 CONTRACTOR USE OF PREMISES**

- A. Contractor will have use of premises for work, storage, and access, but shall limit use as necessary to allow Owner occupancy.
- B. Contractor shall assume full responsibility for protection and safekeeping of products stored on or off premises.
- C. Contractor shall coordinate use of premises with Owner and Engineer, and remove stored products that interfere with the operations of Owner or other contractors.
- D. Contractor shall obtain and pay for all additional storage and work areas needed for operations under this Contract.

## **PART 2 PRODUCTS**

Not Used

## **PART 3 EXECUTION – AMENDMENTS TO SPECIFICATIONS**

### **3.01 SECTION 01000 – GENERAL REQUIREMENTS – BIDDED PROJECTS**

- A. Section 1.1, Drawings and Project Manual are latest revised February 18, 2005.
- B. Section 1.2, The work site shall be accessible to the Contractor during daylight hours and as otherwise restricted by the property owners (businesses). No keys are required for access to the site.
- C. Section 1.12, Monthly partial payment requests shall be submitted to the City Coordinator.
- D. Section 1.16, in paragraph A, delete all text after the first sentence.
- E. Section 1.16, delete paragraph C in its entirety.

### **3.02 SECTION 02200 – EARTHWORK**

- A. No Changes

### **3.03 SECTION 02220 – TRENCHING AND BACKFILLING**

- A. No Changes

### **3.04 SECTION 02500 – BASE COURSE AND PAVING**

- A. No Changes

### **3.05 SECTION 02730 – SANITARY SEWER**

- A. Section 1.5, delete paragraph B, Bypass Pumping, in its entirety.
- B. Section 1.5, delete paragraph C, Tunneling, in its entirety.
- C. Section 2.1, delete paragraph 2.1.6, Carrier Pipe for Casings and Tunnels, and substitute “Carrier pipe shall be HDPE DR-11.”

**End of Section**

**SECTION 02235**  
**BORING AND JACKING**

**PART 1 GENERAL**

**1.01 WORK INCLUDED**

- A. Installation of pipelines using horizontal earth boring and pipe jacking.

**1.02 RELATED SECTIONS**

- A. City of Lynchburg Standard Specifications
- B. City of Lynchburg Standard Details

**1.03 REGULATIONS AND PERMITS**

- A. Comply with all codes, laws, ordinances, regulations, and permits of governmental and other authorities having jurisdiction over this part of the work.

**1.04 REFERENCES**

- A. Virginia Department of Transportation (VDOT) Road and Bridge Specifications, latest edition.
- B. American Railway Engineering Association (AREA) Specifications, latest edition.

**1.05 PRECAUTIONS**

- A. The Contractor shall take every precaution to guard against any movement or settlement of existing or new construction, railways, utilities, paving, walks, light standards, piping, conduit, etc., and shall provide at his own expense, all sheet piling, bracing or shoring necessary in connection therewith. The Contractor shall be entirely responsible for the design, and adequacy of any sheet piling, bracing and shoring required.

**1.06 SUBMITTALS**

- A. Product data for steel casing pipe, including evidence that pipe complies with the Specifications.

## **PART 2 PRODUCTS**

### **2.01 STEEL CASING PIPE**

- A. Steel casing pipe shall conform to ASTM A139, Grade B (No Hydro). Joints shall be butt welded, watertight in accordance with the American Welding Society's recommended procedures. Casing pipe diameter shall be nominally 6-inches and wall thickness shall be no less than 0.188-inches.

## **PART 3 PART 3 EXECUTION**

### **3.01 HIGHWAY AND ROAD CROSSING**

- A. Pipeline crossing shall be installed in a steel casing installed by the "dry case as you go" boring and jacking method. The pipeline crossing shall be installed as shown on the Drawings.
- B. If the Contractor determines that boring and jacking of the highway crossing is not possible due to rock, the Contractor shall make application to VDOT to allow open cutting of the crossing. Contractor shall make every effort to bore and jack before abandoning this method, including use of a rock head. If the trench is allowed to be open cut, casing pipe shall be provided and the trench shall be backfilled entirely to the bottom of the pavement base course and the pavement restored in accordance with VDOT requirements.
- C. All operations of the Contractor shall be subordinate to the free and unobstructed use of the highway right of way for passage of traffic without delay or danger to life, equipment or property. The Contractor shall provide all necessary bracing, bulkheads, and shields to ensure complete safety to all traffic at all times. The Contractor shall arrange for and pay for all flagmen, signs and other measures required by VDOT.

### **3.02 RAILROAD CROSSING**

- A. Pipeline shall be installed in steel casing by the "dry case as you go" boring and jacking method. The pipeline crossing shall conform to Roadway and Ballast Section 5.2 - Specification for Pipelines Conveying Non-Flammable Substances of the American Railway Engineering Association Manual for Railway Engineering. The pipeline crossing shall be installed as shown on the Drawings.
- B. The live load surcharge from the track adjacent to sheeting and bulkheads for the excavation pits and for the trench shall be taken into account in the sheeting and bulkhead design. Allowable stresses contained in the American Railway

Engineering Association Specifications (Chapters 7, 8, and 15) shall be used. Safety railings shall be installed when temporary sheeting or bulkheads are within fifteen (15) feet of the track. A safety factor of two (2) shall be used in the temporary sheeting or bulkhead design. The Contractor shall be required to submit for approval through the Engineer to the Railroad a construction procedure for the temporary sheeting or bulkhead construction. Three copies of the detailed drawings shall be submitted, showing the following:

1. Timber, steel, bolt and weld sizes and details.
  2. Dimensions showing distances from centerline track to temporary sheeting or bulkheads and between supporting elements.
  3. Section showing temporary sheeting or bulkhead heights and track elevation. Also, calculations covering temporary sheeting or bulkhead design shall be submitted for approval. The Contractor shall not proceed with the pipe installation until he has received acceptance of the plan and schedule from the Engineer and from the Chief Engineer's Office of the Railroad.
- C. All operation for the Contractor shall be subordinate to the free and unobstructed use of the Railroad's right of way for passage of traffic without delay or danger to life, equipment or property. The Contractor shall provide all necessary bracing, bulkheads, and shields to ensure complete safety to all traffic at all times. The Contractor shall furnish insurance as specified in the Supplementary Conditions. The Contractor shall arrange for and pay for all flagmen (in excess of the number of days indicated on the bid schedule), signs and other measures required by the Railroad.
- D. The railroad permit is available from the City for information. The City shall pay only the number of days noted in the bid schedule.

### **3.03 DRY JACKED BORING METHOD**

- A. The jacking operation shall be performed in such a manner that settlement of the ground, railway, or the highway above the pipeline will not occur. The use of water or other fluids in connection with the boring and jacking operation shall not be allowed. Excavation shall not precede the jacking operation more than is necessary. Lengths of steel pipe shall be welded to the preceding length installed. Excavation shall be made by auger or manual methods at the Contractor's option to suit conditions encountered. The Contractor shall repair or replace, as directed by the Engineer, at his own expense, casing pipe that is damaged during the jacking operation.



### **3.04 CARRIER PIPE INSTALLATION**

- A. After installation of the casing pipe, the carrier pipe shall be installed. Each joint of the carrier pipe shall be supported by “spider support and spacer assembly” as shown on the Drawings.
- B. The ends of the casing pipe or the tunnel shall be closed off by concrete or masonry block wall prior to backfilling. A steel drain line to a one cubic yard french drain shall be provided at the lower end.

**END OF SECTION**

## **SECTION 02680**

### **TESTING PRESSURE PIPING SYSTEMS**

#### **PART 1 GENERAL**

##### **1.01 REQUIREMENTS INCLUDED**

- A. Provide all personnel, materials, and equipment necessary to perform pressure testing and leakage testing of sanitary sewer force mains.
- B. Provide certificates that all lines meet pressure and leakage requirements.

##### **1.02 RELATED REQUIREMENTS**

- A. City of Lynchburg Standard Specifications

##### **1.03 SUBMITTALS REQUIRED**

- A. Submit test logs with location of lines, date tested, length of line tested, pressure at beginning of test, pressure at end of test, time period, amount of leakage allowable, amount of leakage, signature of person responsible for test and any other pertinent data with Quality Control Report.

#### **PART 2 PRODUCTS**

##### **2.01 MATERIALS, EQUIPMENT, AND WATER SOURCE SHALL BE SUITABLE FOR THE PURPOSE OF TEST.**

#### **PART 3 EXECUTION**

##### **3.01 GENERAL**

- A. Force Main Testing Methodology
  - 1. After placing the pipe, all thrust restraint, and valve support, and before placement of permanent surface, all newly laid pipe or any valved section thereof shall be subjected to a hydrostatic pressure at least 1.5 x the working pressure at the point of testing or 150 psi. Allow seven days after thrust restraint blocks have been poured before testing. Hydrostatic test shall be made between all valved sections of pipe so that test pressure is applied to one side of each valve in the system at a minimum.
  - 2. Test Pressure Restrictions
    - a. Test pressures shall:
      - 1) Not be less than 1.25 times the working pressure at the highest point along the test section.

- 2) Not exceed pipe or thrust restraint design pressures.
  - 3) Be of at least 2-hour duration.
  - 4) Not vary by more than  $\pm 5$  psi for the duration of the test.
  - 5) Not exceed twice the rated pressure of the valves or hydrants when the pressure boundary of the test section includes closed gate valves or hydrants.
  - 6) Not exceed the rated pressure of the valves when the pressure boundary of the test section includes closed resilient-seated gate valves or butterfly valves.
3. Pressurization
    - a. Each valved section of pipe shall be filled with water slowly and the specified test pressure, based on the elevation of the lowest point of the line or section under test and corrected to the elevation of the test gauge, shall be applied by means of a pump connected to the pipe in a manner satisfactory to the Owner's Representative.
  4. Air Removal
    - a. Before applying the specified test pressure, air shall be expelled completely from the pipe, valves and hydrants. If permanent air vents are not located at all high points, the Contractor shall install corporation cocks at such points so that the air can be expelled as the line is filled with water. After all the air has been expelled, the corporation cocks shall be closed and the test pressure applied. At the conclusion of the pressure test, the corporation cocks shall remain closed and left in place.
  5. Examination
    - a. All exposed pipe, fittings, valves, hydrants, and joints shall be examined carefully during the test. Any damaged or defective pipe, fittings, valves, or hydrants that are discovered following the pressure test shall be repaired or replaced with sound material and the test shall be repeated until it is satisfactory.
  6. Leakage defined
    - a. Leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof, to maintain pressure within 5 psi of the specified test pressure after the air in the pipeline has been expelled and the pipe has been filled with water. Leakage shall not be measured by a drop in pressure in a test section over a period of time.

7. Allowable leakage

- a. No pipe installation will be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{SD\sqrt{P}}{133,200}$$

in which L is the allowable leakage, in gallons per hour; S is the length of pipeline tested, in feet; D is the nominal diameter of the pipe, in inches; and P is the average test pressure during the leakage test, in pounds per square inch gauge.

- 1) Allowable leakage shall not exceed the amount given by the leakage formula found in the most current AWWA Standard C-600.
- 2) When testing against closed metal-seated valves, an additional leakage per closed valve of 0.0078 gallons/hour/inch of nominal valve size shall be allowed.

8. Acceptance of Installation

- a. Acceptance shall be determined on the basis of allowable leakage. If any test of pipe laid discloses leakage greater than that specified above, the Contractor shall, at his own expense, locate and make repairs as necessary until the leakage is within the specified allowance. All visible leaks are to be repaired regardless of the amount of leakage.

**END OF SECTION**

## **SECTION 11077**

### **SEWAGE GRINDER PUMPS**

#### **PART 1 GENERAL**

##### **1.01 WORK INCLUDED**

###### **A. SCOPE**

1. This section specifies packaged grinder pump stations complete with simplex grinder pumps, check valves, HDPE tank and controls, ready for installation.

###### **B. DESIGN**

1. The pumps shall be utilized to store unscreened wastewater, grind and pump the wastes into a pressure sewer system on a basis of start and stop operation.
2. Each simplex pump station will serve a single commercial building.
3. Each simplex pump station shall fit the conditions required to serve its associated unit. Simplex pump stations of depth appropriate to provide adequate depth of sewer connection and suitable cover over the discharge shall be provided while at the same time maintaining the recommended exposure of the top of the pump station for access to the pump.

###### **C. ACCEPTABLE MANUFACTURER**

1. The packaged grinder pump stations shall be Model GP2010 as manufactured by Environment One Corporation, Niskayuna, New York, and shall be in varied lengths as required to meet site conditions.
2. Operating conditions may vary, depending upon how many grinder pump stations operate at a single time and contribute into a single pressure sewer system. Each pump station shall have a primary operating point at 11 gpm at 40 psig pressure. Secondary operating points shall be 9 gpm at 60 psig and 15 gpm at 0 psig. Pumps shall be capable of operating at higher pressures than 60 psig on an intermittent basis, as necessary.

##### **1.02 RELATED WORK**

- A. City of Lynchburg Standard Specifications

##### **1.03 SUBMITTALS**

- A. Shop drawings, catalog data sheets, pump curves, diagrams, design calculations, and other such data necessary to describe completely and to substantiate compliance with the drawings and specifications shall be submitted for all materials, equipment and accessories specified in this section.

- B. Complete operation and maintenance instructions for all equipment shall be submitted with the shop drawings. No shop drawing will be considered complete until the operation and maintenance instructions have been approved by the Engineer.

#### **1.04 MANUFACTURER'S REPRESENTATIVES**

- A. The Contractor shall require, as part of the work under this contract, and at no additional cost to the Owner, that the approved pump manufacturers provide the services of competent and experienced representatives to instruct the Contractor as required for the proper installation and start up of the equipment and to instruct the Owner-designated employees in the operation and maintenance of the installation.

#### **1.05 QUALITY ASSURANCE**

- A. All materials and workmanship shall be of first class quality, and shall be used for the purpose for which they were manufactured.
- B. Each pump manufacturer shall warrant the equipment provided against defects in materials and workmanship for a period of twelve (12) months from start-up, under the use, operation and service of this project. The warranty shall be written.

#### **1.06 PRODUCT SUBSTITUTIONS**

- A. All products provided for the contract, whether named product or substitutions, shall be suitable for the intended function and indicated installation. The cost of any redesign or modifications to accommodate products provided, shall be borne by the Contractor.

### **PART 2 PRODUCTS**

#### **2.01 EQUIPMENT**

- A. Pumping stations shall be packaged, including wetwell, pumps, check valves, internal piping, electrical and controls, requiring only setting in place, connection of sewer, force main and electrical power to be operable.
- B. All pump motors and controls shall be suitable for operation a 40 degrees C ambient temperature.
- C. Motors shall be 1 HP, 1725 rpm, high torque, capacitor start, thermally protected, 240 volt, 60 hertz units, designed for single phase electrical power.
- D. The pump stations shall be capable of connection to and operation from residential style single phase electrical generators.
- E. Inlet to the wetwell shall be 4" grommet standard for DWV pipe.
- F. Pump discharge shall terminate into a 1-1/4-inch NPT female thread.
- G. An adequate concrete anchor shall be provided to negate any buoyant forces considering groundwater level at finished grade.

- H. The pump station shall be equipped with automatic overload reset device to reactivate the pump units following an overload or overheating event.
- I. Power shall be connected to the pump station from the City's dedicated single phase power service provided for each unit. Power shall be routed through a wall mounted disconnect panel with audible and visual alarm.

## **PART 3 EXECUTION**

### **3.01 EQUIPMENT INSTALLATION**

#### **A. GENERAL**

- 1. The installation of all equipment shall be as recommended by the manufacturer to conform to the particular application, in accordance with the details shown on the drawings. Installation of equipment and connection to equipment shall be completed in every detail in a first-class workmanlike manner.

#### **B. INSPECTION**

- 1. A manufacturer's representative shall inspect the installation after complete installation. The representative shall make all necessary field adjustments to the equipment for satisfactory operation.

### **3.02 ACCEPTANCE TEST**

- A. Prior to acceptance of all or any part of the work, the Contractor shall test all equipment and certify that the equipment has been installed in accordance with the manufacturer's requirements and is ready to begin operation. The field tests shall show conformance with the guaranteed performance. In the event that the field tests show that any unit does not conform with the guaranteed performance, the unit shall be altered by approved means as necessary to provide the guaranteed performance and the field test re-run to verify the results, or the unit shall be removed and replaced with a new unit conforming with the Specifications and providing guaranteed performance, at no additional cost to the Owner. The Contractor shall furnish all labor, piping, equipment, and materials necessary for conducting the test. All adjustments necessary to place the above equipment in satisfactory working order shall be made at the time of the above test at no additional cost to the Owner.

### **3.03 TRAINING**

- A. Provide services of equipment manufacturer's field service representatives to instruct Owner's personnel on the operation and maintenance of the equipment for a minimum of 4 hours.

**END OF SECTION**

## **SECTION 15060**

### **PIPE AND PIPE FITTINGS**

#### **PART 1 GENERAL**

##### **1.01 REQUIREMENTS INCLUDED**

Furnish all piping, fittings, and appurtenances as shown and as specified and required.

##### **1.02 RELATED REQUIREMENTS**

A. City of Lynchburg Standard Specifications

##### **1.03 QUALITY ASSURANCE**

Comply with all applicable codes and regulations as required by regulatory agencies having jurisdiction over this Work. Comply with the pertinent sections of the following Standards:

- A. AWWA - American Water Works Association
- B. ANSI - American National Standards Institute
- C. ASTM - American Society of Testing and Materials
- D. NSF - National Sanitation Foundation

##### **1.04 SUBMITTALS**

Shop drawings and product data for pipe and fittings, including detailed drawings on pipe, fittings, gaskets, and appurtenances, and evidence that pipe and fittings comply with Contract Specifications and Reference Standards.

#### **PART 2 PRODUCTS**

##### **2.01 HIGH DENSITY POLYETHYLENE TUBING**

High Density Polyethylene (HDPE) tubing shall be seamless, polyethylene pressure pipe in accordance with ASTM standards D3035 and F714 and shall conform to AWWA C901 and C906 standards. The pipe shall be pressure rated at 160 psi. The walls shall have a minimum thickness conforming to DR 11.0. Pipe shall not be fused unless shown to be absolutely necessary and approved by engineer.



## **2.02 COPPER TUBING**

Copper tubing shall be seamless, annealed copper tubing Type K, in conformance with ASTM B88. Exposed tubing shall be hard-temper and buried tubing shall be soft-temper. Fittings shall be wrought copper or cast bronze. Exposed joints shall be threaded or flanged fittings. Solder joint will not be accepted unless shown to be absolutely necessary and approved by engineer. Solder joint type fittings shall conform to ANSI B16.22 or ANSI B16.18. Solder used shall be a 95-5 Tin-Antimony alloy in conformance with ASTM B32.

## **2.03 FITTINGS FOR HDPE AND COPPER TUBING**

Fittings shall be of bronze construction and shall be have grip joint type connections as manufactured by Ford Meter Box Company. Pack joints shall not be used unless grip joints are not available. Insert stiffeners shall be used in each HDPE tubing connection to a coupling. All connections shall be made per manufacturer's installation requirements.

## **2.04 PVC PIPE**

Schedule 40 PVC pipe shall conform to ASTM D 1785 and socket welded fittings shall conform to ASTM D 2466, D 2564 and D 2855. PVC pipe shall be installed without fittings wherever sewer lengths permit.

# **PART 3 EXECUTION**

## **3.01 PIPE INSTALLATION**

- A. Piping shall be installed in accordance with appropriate installation specifications in Division 2.
- B. Piping materials required for specific applications shall be as indicated on the drawings. Pipe shall be cut accurately to dimensions established at the job site and worked into place without springing or forcing, properly clearing all openings and other conflicts. Open ends of pipelines or equipment shall be properly capped or plugged during installation to prevent entry of dirt or other foreign material into the system.
- C. Changes in direction of piping shall be made with fittings.
- D. Pipe shall be installed in strict accordance with manufacturer's instructions.

**END OF SECTION**

**SECTION 15110**  
**VALVES AND SPECIALTIES**

**PART 1 GENERAL**

**1.01 REQUIREMENTS INCLUDED**

Furnish all valves, specialties, and appurtenances as shown and as specified and required.

**1.02 RELATED REQUIREMENTS**

A. City of Lynchburg Standard Specifications

**1.03 QUALITY ASSURANCE**

Comply with all applicable codes and regulations as required by regulatory agencies having jurisdiction over this Work. Comply with the pertinent sections of the following Standards:

A. AWWA - American Water Works Association

B. ANSI - American National Standards Institute

C. ASTM - American Society of Testing and Materials

**1.04 SUBMITTALS**

Shop drawings and product data for valves and specialties.

**PART 2 PRODUCTS**

**2.01 BALL VALVES**

Ball valves shall be of bronze construction with grip joint couplings as manufactured by Ford Meter Company. Pack joints shall not be used unless grip joints are not available. Insert stiffeners shall be used when connecting HDPE tubing to valve. All connections shall be made per manufactures installation requirements. Valve box shall be provided for all valves per City of Lynchburg requirements.

**PART 3 EXECUTION**

Not Used

**END OF SECTION**

## DIVISION 16

### ELECTRICAL SPECIFICATIONS

#### 16000 - ELECTRICAL GENERAL REQUIREMENTS

##### A. REFERENCE STANDARDS

1. American National Standards Institute .....ANSI
2. American Society for Testing and Materials .....ASTM
3. National Electrical Code (NFPA No. 70) .....NEC
4. National Fire Protection Association .....NFPA
5. Underwriters Laboratories, Inc. ....UL
6. Uniform State Building Code.....VUSBC

#### 16110 – RACEWAYS

- A. RIGID STEEL CONDUIT (RSC): Low carbon, hot-dipped galvanized inside and outside, with threaded ends, minimum size  $\frac{3}{4}$  inch. Threaded fittings - cast iron or alloy steel, galvanized.
- B. FLEXIBLE METAL CONDUIT: Galvanized, single strip.
- C. LIQUID TIGHT FLEXIBLE METAL CONDUIT: Sealtite Type U.A. by Anaconda, Liquatite Type LA by Electri-flex Company, Type GU by International Metal Hose Company, or Sealflex-U by Universal Metal Hose Company. Fittings shall be Thomas & Betts Series 6000.
- D. SEALING FITTINGS FOR HAZARDOUS LOCATIONS: Crouse-Hinds Series EYS, EZD, or EZS or equal by Pyle National or Appleton. Sealing material shall be Chico X fiberdam, and Chico A sealing compound, or Chico A-P Interpak by Crouse-Hinds or Apelco sealing cement and fiber filler by Appleton.
- E. CONDUIT BUSHINGS
  1. Insulated
    - a. Type B, by O-Z / Gedney
    - b. Series 1100, by Racor
    - c. Series BU500, Steel City.

2. Arrangement: Space groups of conduits uniformly. For bends and offsets, use an approved hickey or bending machine. Install runs of conduit parallel or F.

THREAD LUBRICANT / SEALANT : Thread lubricant / sealant shall be Crouse-Hinds Type STL or equal by Ideal or O-Z / Gedney. When required on joints for heat producing elements such as lighting fixtures, thread lubricant / sealant shall be Crouse-Hinds Type HTL or equal by Ideal or O-Z / Gedney.

#### G. APPLICATION

1. Install rigid steel conduit.
2. Flexible metal conduit: Install flexible metal conduit for connections to equipment subject to vibration indoors.
3. Install liquid tight flexible metal conduit for connections to equipment subject to vibration outdoors.
4. Install sealing fittings and fill with sealing material where conduits pass from hazardous areas to areas of normal atmosphere.
5. Install thread lubricant/sealant on all underground conduits and conduits outdoors, above ground

#### H. Conduit Installation

1. Cut all conduit with hacksaw or approved cutting machine and ream after threading to remove all burrs.  
perpendicular to walls, structural members, or intersections of vertical planes and ceilings. Provide right angle turns consisting of fittings or symmetrical bends. Conduits connecting to cable trays may be angled into tray to allow better cable lay. Avoid condensation pockets in installations. Not more than one exposed conduit shall be run down to an exposed wall switch or outlet box.
3. Conduit Support: Support runs of metallic conduit at least every 8 feet. Support conduits within 1 foot of all changes in direction.

### **16120 - WIRE, CABLE AND WIRING (SINGLE CONDUCTOR) (600 VOLTS MAX)**

- A. CONDUCTOR CODING : Color code insulated conductors in accordance with NEC 210-5(B).
- B. CONDUCTOR REQUIREMENTS: All conductors shall be copper. Insulation shall be type THWN or XHHW, rated for 600 volts, 750C unless otherwise indicated.

## **16133 - PULL BOXES**

- A. NEMA 1 BOXES: Constructed of code gage, hot-rolled sheet steel. Removable covers suitable for surface or flush mounting as applicable. Hot-dipped galvanized finish on all sheet steel. Cadmium plated hardware.
- B. CONDUIT BODIES: Cast copper-free aluminum. Natural finish. Stainless steel hardware.
- C. APPLICATION: Install pull boxes or conduit bodies as required to avoid exceeding manufacturer's maximum pulling tensions.

## **16190 - SUPPORTING DEVICES**

- A. INDOORS: Materials shall be galvanized or cadmium plated steel.
- B. OUTDOORS: Threaded materials shall be stainless steel. All other materials shall be aluminum, stainless steel, and/or fiberglass-reinforced plastic.
- C. ACCEPTABLE MANUFACTURERS: B-Line Systems, Inc.; Midland-Ross Corporation, Electrical Products Division (Kindorf); T.J. Cope, Inc.; Aickinstrut; Unistrut.
- D. APPLICATION
  - 1. Support all equipment which is not inherently self-supporting in such a manner as to effect a rigid and permanent installation. Use factory-fabricated channel, support systems, and as appropriate, other structural shapes such as angles, "C" channels, pipe, and the like. Where specifically indicated on the drawings, use supporting structures constructed of wood members.
  - 2. Conduit
    - a. Single Runs: Galvanized conduit straps or ring bolt type hangers with specialty spring clips. Do not use plumbers perforated straps.
    - b. Multiple Runs: Trapeze rack with 25 percent spare capacity.
    - c. Vertical Runs: Channel support with conduit fittings, 25 percent spare capacity.
  - 3. Anchor methods
    - a. Hollow Masonry: Toggle bolts or spider type expansion anchors.

- b. Solid Masonry: Lead expansion anchors or preset inserts.
- c. Metal Surfaces: Machine screws, bolts, or welded studs.
- d. Wood Surfaces: Wood screws or sheet metal screws
- e. Concrete Surfaces: Self-drilling anchors or powder-driven studs.

## **16450 - GROUNDING**

- A. CONDUCTORS: Equipment grounding conductors in raceways shall be insulated copper sized in accordance with NEC 250-95.
- B. INSTALLATION
  - 1. Install equipment grounding conductors in all raceways containing conductors having 100 volts or more to ground.
  - 2. Ground all enclosures.

END OF ELECTRICAL SPECIFICATIONS